

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JEONG JE-CHANG, and MUN HEN-HEE

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Appeal No. 1998-1339  
Application 08/024,305<sup>1</sup>

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ON BRIEF

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Before LEE, GARDNER-LANE and MEDLEY, Administrative Patent Judges.

LEE, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's rejection of appellants' claims 1, 2, 4, 5, and 8-17. Claim 6 has been allowed, and claims 3 and 7 have been canceled. The real party in interest is Samsung Electronics Co., Ltd.

**References relied on by the Examiner**

Gharavi	4,821,119	Apr. 11,
1989		

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<sup>1</sup> Application for patent filed March 1, 1993.

**The Rejection on Appeal**

Claims 1, 2, 4, 5, and 8-17 stand rejected under 35  
U.S.C. § 103 as being unpatentable over Gharavi.

**The Invention**

The claimed invention is directed to a signal compressing  
system. The only independent claims are claims 1 and 10,  
which are reproduced below:

1. A signal compressing system, comprising:

coding means for simultaneously scanning a first  
signal according to a plurality of different  
scanning patterns to provide respective coded  
versions thereof;

selection means for selecting one of said  
scanning patterns which produces efficient sub-block  
coding according to a predetermined criterion and  
for outputting a scanning pattern signal identifying  
the selected scanning pattern and the selected coded  
version of said first signal; and

a variable length coder to variable length code  
the received selected coded version of said first  
signal which is produced by scanning according to  
the selected scanning pattern.

10. A signal compressing system for coupling a  
first signal representing a video signal to a first  
coder as a selected coded signal, said system  
comprising:

a second coder for simultaneously scanning said  
first signal according to a plurality of different

scanning patterns and producing respective coded signals; and

a selector receiving said coded signal for selecting one of said scanning patterns based upon a predetermined sub-block selection criterion and for outputting a scanning pattern signal identifying the selected scanning pattern and said selected coded signal.

### **Opinion**

The rejection of claims 1, 2, 4, 5, and 8-17 cannot be sustained. We reverse.

A reversal of any rejection on appeal should not be construed as an affirmative indication that the appellants' claims are patentable over prior art. We address only the sufficiency of the findings and rationale as set forth by the examiner and on which the examiner's rejection is based.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one with ordinary skill in the art would have been led to

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modify or combine prior art references to arrive at the claimed invention. Such reasons must stem from some teaching, suggestion, or implication in the prior art as a whole or knowledge generally possessed by one with ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. See, e.g., In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The mere fact that the prior art may be modified in the manner suggested by the examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Obviousness may not be established using

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hindsight or in view of the teachings or suggestions of the inventor. Para-Ordnance Mfg. Inc. v. SGS Importers Int'l Inc., 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), cert. denied, 117 S.Ct. 80 (1996).

As is stated by the Court of Customs and Patent Appeals in In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967):

A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, all facts must be considered. The Patent Office [examiner] has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis. (Emphasis in original).

In re Freed, 425 F.2d 785, 788, 165 USPQ 570, 572 (CCPA 1970);

In re Lunsford, 357 F.2d 385, 392, 148 USPQ 721, 726 (CCPA 1966)

The problem with the examiner's rejection in this case is that insufficient explanation is provided as to why one with ordinary skill in the art would have been motivated to employ (1) a coding means for **simultaneously** scanning a signal according to a plurality of different scanning patterns to

provide respective coded versions thereof, and (2) a selection means or a selector which selects one of the scanning patterns which produces efficient sub-block coding.

On page 4 of the answer, the examiner states:

Gharavi does not disclose a selection means for "simultaneously" selecting one of the scanning patterns which produces efficient coding and a scanning mode selector for selecting a scanning mode in which a number of bits produced from a start to an end of a sub-block is minimized as specified in claims 1, 6, and 10. In contrast, Gharavi discloses using different scanning patterns (figs. 7a-7c) at sub-block level to maximize bit efficiency (col. 6, lines 24-31). Furthermore, Gharavi suggests that compression efficiency can be further improved by adaptively scanning the reconstructed block (see col. 7, lines 37-44). In other words, a selection of the scanning pattern which will yield maximum coding efficiency is implied.

In addition, Gharavi fails to teach the scanning pattern selecting means as claimed, however, the suggestive teaching that the scanning patterns can be adaptively scanned to improve coding efficiency as disclosed in Gharavi implicate that a means for selecting one of the three scanning patterns is essentially necessary. Therefore, one skilled in the art having Gharavi before his/her would have been motivated to further explore the suggestive teaching of an adaptive scanning method as disclosed in Gharavi to come up with an improved means and method steps of producing a plurality of scanning patterns and adaptively selecting one which will yield the highest coding efficiency as claimed. (Emphasis in original).

The above-quoted explanation of the examiner comes up

short in terms of the "simultaneous scanning" feature of the appellants' claimed invention. While Gharavi does describe several possible scanning patterns (column 2, line 67 to column 3, line 5), it does not describe or suggest simultaneous scanning based on the plurality of scanning patterns. In column 3, lines 5-11, Gharavi states:

The inter-sub-block scanning pattern either can be predetermined in advance for all blocks or, alternatively, can be made adaptive by deciding which scanning method is most efficient and transmitting additional overhead information to the receiver at the beginning of each block that indicates the particular inter-sub-block scanning method employed.

It has not been explained by the examiner why a suggestion to decide on the run, or adaptively, which scanning method would be the most efficient for the current block being processed would have led one with ordinary skill in the art to the feature of simultaneous scanning based on all scanning patterns. "Adaptive" does not mean "simultaneous." Gharavi does not even state that the decision of which pattern would be the most efficient is made on the basis of actually performing scanning according to each of the scanning patterns. Even if the Gharavi decision is made on the basis of actually performing scanning based on each of the scanning

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patterns, it has not been adequately accounted for by the examiner why it would have been obvious to one of ordinary skill in the art to have such scanning performed simultaneously as opposed to sequentially.

It appears that the examiner has ignored the simultaneous scanning aspect of the appellants' invention. Note the following statement in the examiner's answer on page 6, lines 12-15:

The gist of the invention is to provide an image encoder as a whole which is capable of providing multi-pattern scanning and that one of the patterns can be adaptively selected to yield the best coding efficiency (see "Specification", p.6, lines 24-26). It is believed that Gharavi substantially teaches this aspect.

It is inappropriate for the examiner to generalize the claimed invention to some broader "gist" at the expense of eliminating a claimed feature of the appellants' claimed invention, i.e., simultaneous scanning according to a plurality of different scanning patterns to provide respective coded versions thereof. There is no legally cognizable "gist" or "heart" of the invention in a combination patent. Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1565, 19 USPQ2d 1111, 1118 (Fed. Cir. 1991). Each feature of the appellants' claimed



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invention is material and must be accounted for by the  
examiner in a rejection based on prior art.

For all of the foregoing reasons, we reverse the  
rejection of claims 1, 2, 4, 5, and 8-17.

**Conclusion**

The rejection of claims 1, 2, 4, 5, and 8-17 under 35  
U.S.C. § 103 as being unpatentable over Gharavi is reversed.

**REVERSED**

JAMESON LEE	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
SALLY GARDNER-LANE	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
	)	
	)	
SALLY C. MEDLEY	)	
Administrative Patent Judge	)	

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